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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,262	10/12/2001	Naomichi Miyakawa	214814US0	8858

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EXAMINER	
FIORILLA, CHRISTOPHER A	
ART UNIT	PAPER NUMBER
1731	9

DATE MAILED: 03/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/975,262	Applicant(s) MIYAKAWA, NAOMICHI	
	Examiner Christopher A. Fiorilla	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 December 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niwa et al. for the reasons as set forth in the previous office action.

3. Applicant's arguments filed 12/23/02 have been fully considered but they are not persuasive.

Niwa et al. relates to the preparation of a slideable member, while the claimed inventionof the other hand, relates to a method for producing a silicon nitride filter suitable for dust arresting or dust removing. Completely different and non-analogous objectives thus are involved in the present invention as compared to the invention of Niwa et al.

This argument is not persuasive. Although in name, these articles are different, both Niwa et al. and the claimed invention are concerned with the objective of producing a silicon nitride porous sintered product. Thus, the products are not structurally different.

In the claimed method, the green body is heat treated in nitrogen. In Niwa et al., on the other hand, heat treatment can be effected in a variety of atmospheres (col. 7, lines 25-29), atmospheric air being specifically illustrated (col. 8, lines 44-45), whereas an atmosphere of nitrogen is essential in the claimed invention.

This argument is not persuasive. Niwa et al. discloses heat treating in a nitrogen atmosphere (col. 7, line 27). Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. *In re Susi*, 169 USPQ

423 (CCPA 1971). Thus, the disclosure of the other suitable atmospheres in Niwa et al. does not constitute a teaching away from a nitrogen atmosphere.

As ceramic material in Niwa et al. it is not essential that it be silicon nitride, other ceramic materials being equally suitable (col. 4, lines 6-11). As a matter of fact, only alumina is specifically illustrated in their experiment.

This argument is not persuasive. Again, disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. *In re Susi*, 169 USPQ 423 (CCPA 1971). Thus, the disclosure of the other suitable ceramics in Niwa et al. does not constitute a teaching away from silicon nitride.

The objective of Niwa et al. is to obtain an average pore diameter significantly greater than as obtained by the claimed method (col. 4, lines 52-57). Note claim 5.

This argument is not persuasive. The average pore diameters disclosed by Niwa et al. is 5-300 microns (col. 4, line 54). The pore diameter recited in claim 5 is 5-20 microns. In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

It cannot be reasonably said, as the examiner asserts, that the claimed different parameters would have obviously been selected to optimize the process conditions and/or the properties of the final product, when varied and different objectives are desired in the claimed invention as compared to the invention of Niwa et al. Optimization to provide a porous ceramic material for a slideable member excellent in sliding characteristics and durability under thermal shock and thermal stress manifestly would not be considered by the artisan to also be result effective in the making of a filter for removing or arresting dust, specifically in a high-temperature exhaust gas. Note *In re Antonie*, 195 USPG 6.

This argument is not persuasive. As stated above, although in name, these articles are different, both Niwa et al. and the claimed invention are concerned with the objective of producing a silicon nitride porous sintered product. Thus, the products are not structurally

different. Note that arguments of counsel cannot take place of evidence in the record. *In re Pearson*, 494 F.2d 1399, 1405, 181 USPQ 641,646 (CCPA 1974).

That the claimed parameters are result-effective is demonstrated by the examples and comparative examples in the case. Note in particular, comparative examples 7,8 and 13. If, as there shown, the materials and/or conditions are not as claimed, significantly and materially inferior products are obtained. Such additionally refutes any possible prima facie case of obviousness conceivable made out by Niwa et al., unobviously superior results being obtained due to the particular selection of materials and conditions as claimed. It is only when the conditions and materials are as defined in the claims, that the different objective of the claimed invention is realized.

This argument is not persuasive. First, it is submitted that these arguments are not commensurate in scope with the claims since e.g. claim 1 does not claim specific properties. Further, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. The prior art discloses the general conditions (i.e. mixing the claimed ingredients and sintering the mixture) and thus it is maintained that discovery of the optimum sintering and ingredient amount conditions is an obvious modification. Further, determination of optimum or workable ranges are characterized as routine experimentation for recognized result-effective variables. MPEP 2144.05 IIB.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Fiorilla whose telephone number is 703-308-0674. The examiner can normally be reached on M-F, 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on 703-308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7718 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

Christopher A. Fiorilla
Primary Examiner
Art Unit 1731